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EXAMINER	
KHAN, USMAN A	

ART UNIT	PAPER NUMBER
2622	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/776,129	METZGER ET AL.	
	Examiner	Art Unit	
	USMAN KHAN	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 September 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1,3-7 and 9-11* is/are allowed.

6)☒ Claim(s) *8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 December 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Arguments

Applicant's arguments filed on 09/14/2008 with respect to claims 1 and 9 have been considered but are moot in view of the new ground(s) of rejection.

Regarding objection to claims 1 and 10 - 11 provided in the previous office action. Applicant has amended claims 1 and 10 - 11 to overcome the objection to claims 1 and 10 - 11. Also, the objections to claims 3 - 4 have been withdrawn.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3 - 6, 9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reese et al. (US PgPub 2002/0141732) in view of Nelson et al. (US Patent No. 2002/0097917).

Regarding **claim 1,** Reese et al. teaches a surveillance system having a plurality of video cameras (figures 1 – 2 item 310D-1 to 310D-k; paragraph 0016) disposed on an ethernet network (figures 1 – 2 Ethernet network; paragraph 0016) and adapted for communicating with the ethernet network (figures 1 – 2 Ethernet network; paragraph 0016), the system comprising:

a plurality of cameras (figures 1 – 2 item 310D-1 to 310D-k; paragraph 0016);

a digitizer of each camera, the digitizer being integral in a common housing with the respective camera (figure 2 items 310D-1 to 310D-k; the cameras are digital cameras hence there is a digitizer included in the camera):

a network interface for each camera (in figure 1 and figure 2 analog cameras 310-1 to 310-j and digital cameras 310D-1 to 310D-k are connected to the DVRC/DVR, this connection is through some network interface connection of the analog cameras 301-1 to 310-j and digital cameras 310D-1 to 310D-k) the network interface including an IP network stack (paragraph 0012, internet based transfer), the network interface being integral in a common housing with the respective camera (in figure 1 and figure 2 analog cameras 310-1 to 310-j and digital cameras 310D-1 to 310D-k are connected to the DVRC/DVR, this connection is through some network interface connection of the analog cameras 301-1 to 310-j and digital cameras 310D-1 to 310D-k), the network interface being connected to the ethernet network (in figure 1 and figure 2 analog cameras 310-1 to 310-j and digital cameras 310D-1 to 310D-k are connected to the DVRC/DVR, this connection is through some network interface connection of the analog cameras 301-1 to 310-j and digital cameras 310D-1 to 310D-k; this connection is connected to the ethernet connection through the DVRC/DVR as seen in figures 1 – 2); and

each camera communicating with the ethernet network through the network interface (in figure 1 and figure 2 analog cameras 310-1 to 310-j and digital cameras 310D-1 to 310D-k are connected to the DVRC/DVR, this connection is through some

network interface connection of the analog cameras 301-1 to 310-j and digital cameras 310D-1 to 310D-k; this connection is connected to the ethernet connection through the DVRC/DVR as seen in figures 1 – 2).

However, Reese et al. fails to teach a plurality of compressors integral in a common housing with each camera in advance of the network interface at each camera, each of the compressors outputting a respective compressed signal, the compressed signals each having at least one characteristic different from other of the compressed signals, the at least one characteristic being selected from among: image resolution, compression type and compressed bit rate; the network being configured to provide a plurality of data packets, the plurality of data packets conveying the compressed signals.

Nelson et al., on the other hand teaches a plurality of compression methods and sending of compressed information in packet form

More specifically, Nelson et al. teaches a plurality of compression methods and sending of compressed information in packet form (figure 3 items 304 - 307).
Therefore, one of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the teachings of Nelson et al. with the teachings of Reese et al. because in paragraph 0006 Nelson et al. teaches using the invention data can be efficiently handled.

Regarding **claim 3**, as mentioned above in the discussion of claim 1, Reese et al. in further view of in view of Nelson et al. teach all of the limitations of the parent claim.

Additionally, Reese et al. teaches that the system is an archival server (figures 1 – 2; transmit the video signals received from each of the plurality (e.g., j or j+k) of its directly connected video cameras (e.g., 310) to a remote apparatus on the Ethernet network, such as to **another DVRC**, and/or to a personal computer).

Regarding **claim 4**, as mentioned above in the discussion of claim 1, Reese et al. in view of Nelson et al. teach all of the limitations of the parent claim. Additionally, Reese et al. teaches that the system is a recipient in communication with the network (figures 1 – 2; transmit the video signals received from each of the plurality (e.g., j or j+k) of its directly connected video cameras (e.g., 310) to a remote apparatus on the Ethernet network, such as to another DVRC, and/or **to a personal computer**).

Regarding **claim 5**, as mentioned above in the discussion of claim 1, Reese et al. in view of Nelson et al. teach all of the limitations of the parent claim.

Additionally, Nelson et al. teaches that the compressed signals when transmitted to the ethernet network being combined by being interleaved in one stream (figure 3 items 304 - 307).

Regarding **claim 6**, as mentioned above in the discussion of claim 1, Reese et al. in view of Nelson et al. teach all of the limitations of the parent claim. Additionally, Reese et al. teaches that the compressed signals include motion video (figures 1 – 2; transmit the video signals received from each of the plurality (e.g., j or j+k) of its directly

connected video cameras (e.g., 310) to a remote apparatus on the Ethernet network, such as to another DVRC, and/or to a personal computer).

Regarding **claim 9,** Reese et al. teaches a surveillance camera (figures 1 – 2 item 310D-1 to 310D-k; paragraph 0016) adapted for connection to an internet protocol network (figures 1 – 2 Ethernet network; paragraph 0016), the surveillance camera comprising:

a housing (figures 1 – 2 item 310D-1 to 310D-k; paragraph 0016);

a digital encoder supported by the housing (figure 2 items 310D-1 to 310D-k; the cameras are digital cameras hence there is a digitizer included in the camera), the digital encoder being adapted to digitize captured motion video (figure 2 items 310D-1 to 310D-k; the cameras are digital cameras hence there is a digitizer included in the camera for video), the digital encoder outputting digitized motion video (figure 2 items 310D-1 to 310D-k; the cameras are digital cameras hence there is a digitizer included in the camera for video); and

a network interface supported by the housing (in figure 1 and figure 2 analog cameras 310-1 to 310-j and digital cameras 310D-1 to 310D-k are connected to the DVRC/DVR, this connection is through some network interface connection of the analog cameras 301-1 to 310-j and digital cameras 310D-1 to 310D-k), the network interface being in communication with the compressor (in figure 1 and figure 2 analog cameras 310-1 to 310-j and digital cameras 310D-1 to 310D-k are connected to the DVRC/DVR, this connection is through some network interface connection of the analog cameras

301-1 to 310-j and digital cameras 310D-1 to 310D-k), the network interface being adapted to be connected to the internet protocol network for transmitting to the internet protocol network the plurality of compressed motion video signals (in figure 1 and figure 2 analog cameras 310-1 to 310-j and digital cameras 310D-1 to 310D-k are connected to the DVRC/DVR, this connection is through some network interface connection of the analog cameras 301-1 to 310-j and digital cameras 310D-1 to 310D-k; this connection is connected to the ethernet connection through the DVRC/DVR as seen in figures 1 – 2).

However, Reese et al. fails to teach a plurality of compressors integral in a common housing with each camera in advance of the network interface at each camera, each of the compressors outputting a respective compressed signal, the compressed signals each having at least one characteristic different from other of the compressed signals, the at least one characteristic being selected from among: image resolution, compression type and compressed bit rate; the network being configured to provide a plurality of data packets, the plurality of data packets conveying the compressed signals.

Nelson et al., on the other hand teaches a plurality of compression methods and sending of compressed information.

More specifically, Nelson et al. teaches a plurality of compression methods and sending of compressed information (figure 3 items 304 - 307).

Therefore, one of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the teachings of Nelson et al. with the

teachings of Reese et al. because in paragraph 0006 Nelson et al. teaches using the invention data can be efficiently handled.

Regarding **claim 11**, as mentioned above in the discussion of claim 9, Reese et al. in view of Nelson et al. teach all of the limitations of the parent claim. Additionally, Reese et al. teaches a second network interface supported by the housing, the second network interface being adapted to be connected to an internet protocol network for communication between the surveillance camera and the internet protocol network (figures 1 – 2 there are two Ethernet networks; paragraph 0016).

Claim 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reese et al. (US PgPub 2002/0141732) in view of Nelson et al. (US Patent No. 2002/0097917) and in further view of Kohno (US PgPub 2003/0120802).

Regarding **claim 7**, as mentioned above in the discussion of claim 1, Reese et al. in view of Nelson et al. teach all of the limitations of the parent claim.

However, Reese et al. in view of Nelson et al. fails to disclose the camera including memory and a processor associated with the memory; the camera including timestamp application software stored in the memory and executable upon operation of the processor, the timestamp application software when executed attaching presentation timestamps (PTS's) in I-frame packets of the compressed signals; a receiver adapted to be connected to the ethernet network to receive the compressed signals at a location remote from the camera, the receiver including: memory; a

buffering software application stored in memory, the buffering software application including executable steps prescribing: extracting presentation timestamps (PTS's) from each of a series of received I-frame packets; adding to extracted presentation timestamps (PTS's) a time offset sufficient to account for worst case network delay, the extracted presentation timestamps (PTS's) and time offset when added providing a series of respective sums; a video player software application stored in memory, the video player software application when executed playing received compressed signals in series in relation to the sums; and a processor in communication with memory, the processor being operable to execute the executable steps.

Kohno, on the other hand discloses the camera including memory and a processor associated with the memory; the camera including timestamp application software stored in the memory and executable upon operation of the processor, the timestamp application software when executed attaching presentation timestamps (PTS's) in I-frame packets of the compressed signals; a receiver adapted to be connected to the ethernet network to receive the compressed signals at a location remote from the camera, the receiver including: memory; a buffering software application stored in memory, the buffering software application including executable steps prescribing: extracting presentation timestamps (PTS's) from each of a series of received I-frame packets; adding to extracted presentation timestamps (PTS's) a time offset sufficient to account for worst case network delay, the extracted presentation timestamps (PTS's) and time offset when added providing a series of respective sums; a video player software application stored in memory, the video player software

application when executed playing received compressed signals in series in relation to the sums; and a processor in communication with memory, the processor being operable to execute the executable steps.

More specifically, Kohno discloses the camera including memory and a processor associated with the memory (paragraphs 0122 0143 – 0144, and 0171 *et seq.*); the camera including timestamp application software stored in the memory and executable upon operation of the processor (paragraphs 0005 and 0132), the timestamp application software when executed attaching presentation timestamps (PTS's) in I-frame packets of the compressed signals (paragraphs 0005 and 0132); a receiver adapted to be connected to the ethernet network to receive the compressed signals at a location remote from the camera, the receiver including (paragraphs 0004 – 0005, 0068, 0091, and 0132):

Memory (paragraphs 0122 0143 – 0144, and 0171 *et seq.*);

a buffering software application stored in memory (0068 *et seq.* 0110 *et seq. and* 0159 *et seq.*), the buffering software application including executable steps prescribing:

extracting presentation timestamps (PTS's) from each of a series of received I-frame packets (paragraphs 0005 and 0132);

adding to extracted presentation timestamps (PTS's) a time offset sufficient to account for worst case network delay, the extracted presentation timestamps (PTS's) and time offset when added providing a series of respective sums (paragraphs 0005 and 0132);

a video player software application stored in memory (0072 *et seq.* decoder 120 sends to output video), the video player software application when executed playing received compressed signals in series in relation to the sums (0072 *et seq.* decoder 120 sends to output video);

and a processor in communication with memory, the processor being operable to execute the executable steps (paragraphs 0122 0143 – 0144, and 0171 *et seq.*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Kohno with the teachings of Reese et al. in view of Nelson et al. to provide a data communication system, a data transmission apparatus, a data reception apparatus, a data communication method, and a computer program that allows efficient transfer of data to be played in real time, such as data for video-on-demand or videoconferencing, and that allow the data to be played without degrading quality even if an error or a packet loss occurs as taught in paragraph 0010 of Kohno.

While it may not be explicitly stated in the references above that the functionality of an electronic device such as a/an computer may be realized by a/an camera, it is well known to a skilled artisan that camera and computer are in the same field of endeavor as they are both microcontroller/microprocessor controlled devices for processing data, such as imaging, image processing, and/or image manipulation.

Even if the camera and computer are not in the same field of endeavor, which the examiner does not concede, the camera and computer are reasonably pertinent to solving the problem to provide a data communication system, a data transmission

apparatus, a data reception apparatus, a data communication method, and a computer program that allows efficient transfer of data to be played in real time, such as data for video-on-demand or videoconferencing, and that allow the data to be played without degrading quality even if an error or a packet loss occurs as taught in paragraph 0010 of Kohno and would have commended themselves to an artisan addressing such a problem. In re Clay, 966 F.2d 656, 658, 23 USPQ2d 1058, 1060 (Fed. Cir. 1992).

Regarding **claim 10**, as mentioned above in the discussion of claim 9, Reese et al. in view of Nelson et al. teach all of the limitations of the parent claim.

However, Reese et al. in view of Nelson et al. fails to disclose a multiplexer supported by the housing, the multiplexer being in communication with the plurality of compressors to receive the compressed motion video signals, the multiplexer being adapted to combine the plurality of compressed motion video signals in one stream of bytes; the network interface being in communication with the multiplexer, the network interface being adapted to receive the plurality of compressed motion video signals in one stream of bytes, the network interface being adapted to be connected to the internet protocol network for transmitting to the internet protocol network the plurality of compressed motion video signals in one stream of internet protocol packets, the one stream of internet protocol packets including the bytes.

Kohno, on the other hand discloses a multiplexer supported by the housing, the multiplexer being in communication with the plurality of compressors to receive the compressed motion video signals, the multiplexer being adapted to combine the

plurality of compressed motion video signals in one stream of bytes; the network interface being in communication with the multiplexer, the network interface being adapted to receive the plurality of compressed motion video signals in one stream of bytes, the network interface being adapted to be connected to the internet protocol network for transmitting to the internet protocol network the plurality of compressed motion video signals in one stream of internet protocol packets, the one stream of internet protocol packets including the bytes.

More specifically, Kohno discloses a multiplexer supported by the housing (paragraphs 0005 and 0132 sending packets after combining),

the multiplexer being in communication with the plurality of compressors to receive the compressed motion video signals (paragraphs 0005 and 0132 sending packets after combining),

the multiplexer being adapted to combine the plurality of compressed motion video signals in one stream of bytes (paragraphs 0005 and 0132 sending packets after combining);

the network interface being in communication with the multiplexer (paragraphs 0005 and 0132 sending packets after combining),

the network interface being adapted to receive the plurality of compressed motion video signals in one stream of bytes (paragraphs 0005 and 0132 sending packets after combining when combined with Reese et al. in view of Nelson et al.),

the network interface being adapted to be connected to the internet protocol network for transmitting to the internet protocol network the plurality of compressed

motion video signals in one stream of internet protocol packets, the one stream of internet protocol packets including the bytes (paragraphs 0005 and 0132 sending packets after combining when combined with Reese et al. in view of Nelson et al.).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Kohno with the teachings of Reese et al. in view of Nelson et al. to provide a data communication system, a data transmission apparatus, a data reception apparatus, a data communication method, and a computer program that allows efficient transfer of data to be played in real time, such as data for video-on-demand or videoconferencing, and that allow the data to be played without degrading quality even if an error or a packet loss occurs as taught in paragraph 0010 of Kohno.

While it may not be explicitly stated in the references above that the functionality of an electronic device such as a/an computer may be realized by a/an camera, it is well known to a skilled artisan that camera and computer are in the same field of endeavor as they are both microcontroller/microprocessor controlled devices for processing data, such as imaging, image processing, and/or image manipulation.

Even if the camera and computer are not in the same field of endeavor, which the examiner does not concede, the camera and computer are reasonably pertinent to solving the problem to provide a data communication system, a data transmission apparatus, a data reception apparatus, a data communication method, and a computer program that allows efficient transfer of data to be played in real time, such as data for video-on-demand or videoconferencing, and that allow the data to be played without

degrading quality even if an error or a packet loss occurs as taught in paragraph 0010 of Kohno and would have commended themselves to an artisan addressing such a problem. In re Clay, 966 F.2d 656, 658, 23 USPQ2d 1058, 1060 (Fed. Cir. 1992).

Allowable Subject Matter

Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter for **claim 8**: The receiver further including: receiver including the video player software application including a video player time base, **the video player time base providing a measure for pacing play of the received compressed signals; the buffering software application including executable steps prescribing: the time offset being a predicted delay value (delta T), the predicted delay value (delta T) initially being an estimate of worst case network delay, the extracted presentation timestamps (PTS's) and predicted delay value (delta T) when added providing the series of respective sums; substituting the respective sums for each presentation timestamp (PTS) to delay playback of each frame by the predicted delay value (delta T); obtaining a local prediction of delay (local delta T) from the video player time base; changing the predicted delay value (delta T) by a difference amount, the difference amount being calculated between the predicted delay value (delta T) and the local prediction of delay (local delta T) before adding the predicted**

delay value (delta T) to a next extracted presentation timestamp (PTS's) extracted from the series of received I-frame packets is not discussed or suggested in any of the prior art that was searched.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Usman Khan whose telephone number is (571) 270-1131. The examiner can normally be reached on Mon-Thru 6:45-4:15; Fri 6:45-3:15 or Alt. Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Usman Khan/

Usman Khan
12/19/2008
Patent Examiner
Art Unit 2622

/David L. Ometz/
Supervisory Patent Examiner, Art Unit 2622